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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,966	03/05/2002	Hiroomi Hanai	UNIUS8.001AUS	3472

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EXAMINER

SAVAGE, JASON L

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 06/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,966

Applicant(s)

HANAI, HIROOMI

Examiner

Jason L. Savage

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_

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***Drawings***

1. The corrected or substitute drawings were received on 03-05-02. These drawings are accepted however formal drawings will be required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites that the adhesive layer may be separable by being heated or (emphasis added) an adhesive layer separable by being cured with UV of a carrier sheet. Thus is unclear if the carrier sheet is merely an optional component in the claimed composite or if it is a requirement of the claimed method. The claims dependent upon claim 1 include the same limitation and thus also stand as being rejected for being indefinite.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukagoshi et al. (US 6,479,757).

Tsukagoshi teaches a method for manufacturing a ceramic green sheet inductor (col. 4, 3-21). The method comprises the steps of forming a conductive electrode pattern **15** on an adhesive layers **16** which is separable by being heated (col. 10, ln. 23-51). The ceramic green sheet is completed by applying a ceramic slurry to form a green ceramic layer **19** on the separable adhesive layer **16** with the conductive electrode pattern **15** formed thereon (col. 10, ln. 41-67).

Tsukagoshi is silent to using a carrier sheet in conjunction with the adhesive layer; however, the claim states that the adhesive layer may be separable by being heated or (emphasis added) an adhesive layer separable by being cured with UV of a carrier sheet. Thus is unclear if the carrier sheet is merely an optional component in the claimed composite or if it is a requirement of the claimed method. In the even that the use of a carrier sheet is not merely an optional step, the combination of a releasable adhesive on a carrier sheet is a structure that is known by one of ordinary skill in the art and would have been an obvious modification to the process taught by Tsukagoshi. One may have been motivated to use a carrier sheet in conjunction with the adhesive to assist in separation of the adhesive layer after foaming.

Regarding claim 2, Tsukagoshi teaches heating to foam the adhesive layer will effect the separation of the layer (col. 10, ln. 47-51 and col. 11, 1-13).

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Regarding claim 3, Tsukagoshi does not teach that the foamable adhesive contain expandable particles, however the use of expandable particles to effect foaming in an adhesive is well known and would have been an obvious design choice.

Regarding claims 4 and 12, Tsukagoshi is silent to the dynamic modulus of elastic of the adhesive at the claimed temperatures, however, absent a teaching of the criticality of the claimed modulus of elasticity, it would not provide a patentable distinction over the prior art.

Regarding claim 5, Tsukagoshi is silent to the adhesive being a side chain crystalline resin, however on page 17, lines 13-17 of the specification, Applicant states that the crystallization of the side chain crystalline resin advanced by heating to lose adhesion so that the adhesive strength might be decreased to a level in which the carrier sheet may be easily separated. It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected an adhesive which displayed a decreased level of adhesion when heated, such as a side chain crystalline resin, since Tsukagoshi teaches that the adhesive strength should decrease once the adhesive is heated.

Regarding claims 6-7 and 13-14, Tsukagoshi is silent to the adhesive strength of the adhesive however it does teach that the adhesive strength is good but that it decreases sufficiently to effect release when heated to a certain temperature (col. 10, ln. 32-51). The amount of adhesive strength desired at room temperature would have merely been a design choice which does not provide a patentable distinction over the prior art.

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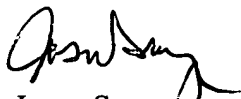
Regarding claim 8, Tsukagoshi teaches laminating ceramic green sheets **206** onto other green sheets **208** (Figure 12 E). Tsukagoshi teaches that the use of a heat separable adhesive layer to form the ceramic green sheet and then transferring the green sheet onto other ceramic green sheets is a suitable method of forming the multilayer component (col. 13, ln. 38-42).

Regarding claims 9-11, the claimed articles would have been formed by the methods taught by Tsukagoshi.


6. Any inquiry to this communication or earlier communications from the Examiner should be directed to Jason Savage, whose telephone number is (703)305-0549. The Examiner can normally be reached Monday to Friday from 6:30 AM to 4:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Deborah Jones, can be reached on (703)308-3822.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)308-2351.

  
Jason Savage

6-12-03

  
**JOHN J. ZIMMERMAN**  
**PRIMARY EXAMINER**